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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,825	11/03/2005	Friedrich Kastner	2005_0183A	4008

513 7590 02/05/2010

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EXAMINER	
JOLLEY, KIRSTEN	

ART UNIT	PAPER NUMBER
1792	

NOTIFICATION DATE	DELIVERY MODE
02/05/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/523,825	KASTNER ET AL.	
	Examiner	Art Unit	
	Kirsten C. Jolley	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4 and 6-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 6-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date __.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The claim objections and 35 USC 112, 1st and 2nd paragraph rejections have been withdrawn in response to Applicant's amendments to the claims.

2. The 35 USC 102 and 103 rejections over Walter et al. and WO '155 have been withdrawn in response to Applicant's amendments to the claims requiring that the spacer layer is modified by a process selected from the group consisting of PVD, CVD, and treatment with oxidizing fluids. Walter et al. and WO '155 do not disclose this process step.

3. Regarding the 35 USC 102 and 103 rejections over Phillips et al., Applicant's arguments filed October 1, 2009 have been fully considered but they are not persuasive. Applicant argues that Phillips et al. does not teach or fairly suggest the step of modifying the spacer layer by a process selected from the group consisting of a PVD process, a CVD process, and treatment with oxidizing fluids. This is not convincing because Phillips et al. teaches in paragraphs [0082]-[0083] that its optical coating may include a shear-sensitive interlayer 78 of vapor-deposited material that is applied on the dielectric 20 (which corresponds to the claims' spacer layer). As discussed below, Phillips et al. does not specifically state that the vapor deposition method used to apply interlayer 78 is CVD or PVD, however these are well known and most common methods for vapor deposition. Application of interlayer 78 on the dielectric/spacer layer 20 by either a PVD or CVD process reads on the claimed step of modifying the spacer layer by a PVD or CVD process.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 15 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15 and 19 recite the limitation "the first carrier substrate" in lines 5 and 6, respectively. There is insufficient antecedent basis for this limitation in the claim. It is additionally noted that claims 15 and 19 appear to be substantially duplicative of claims 3 and 11.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-2, 4, 6-7, 10, 13-14, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. (US 2004/0101676).

With respect to independent claim 1, Phillips et al. discloses a method for the production of antifalsification identification elements comprising: applying a layer 22 reflecting electromagnetic waves and subsequently a dielectric spacer layer 20, which may be polymeric (paragraph 67), on a carrier substrate 12 (Figure 8B and paragraph 84); followed by applying an

absorber layer 18 on the spacer/dielectric layer 20. Phillips et al. teaches that the absorber layer may be formed of metals mixed in a dielectric matrix (paragraph 64), which would form metallic clusters. The metallic clusters layer is produced by vacuum technology (paragraph 85).

With respect to independent claim 2, Phillips et al. discloses a method for the production of antifalsification identification elements comprising a reversed order of deposition (paragraph 84): applying an absorber layer 18 containing metallic clusters and subsequently a dielectric spacer layer 20, which may be polymeric (paragraph 67), on a carrier substrate 12; followed by applying a layer 22 reflecting electromagnetic waves on the spacer/dielectric layer 20.

With respect to the new limitation in both claims 1 and 2 of modifying the spacer layer by a process selected from a group consisting of a PVD process, a CVD process, and treatment with oxidizing fluids, Phillips et al. teaches in paragraph [0082] that its optical coating may include a shear-sensitive interlayer 78 of vapor-deposited material that is applied on the dielectric layer 20 (which corresponds to the claims' spacer layer). The Examiner notes that it is well known in the coating art that PVD and CVD are two well known and most common means for "vapor depositing" a coating. It would have been obvious to one having ordinary skill in the art to have applied the shear interlayer 78 in the optical coating of Phillips et al. by either a CVD or PVD process since they are well known and commonly used means for vapor deposition. Application of interlayer 78 on the dielectric/spacer layer 20 by either a PVD or CVD process reads on the claimed step of modifying the spacer layer by a PVD or CVD process. Further, paragraph [0083] states that the shear interlayer can be utilized in the other embodiments that utilize an optical coating comprising a multilayer foil, which would include the process/structure of claim 2.

As to claim 4, Phillips et al. teaches a protective layer on top of the metallic clusters layer in the embodiment of Figure 10B, where a carrier sheet 64 is the bottommost layer/substrate and a film substrate 12 acts as a protective layer on top of the layer 18 having metallic clusters therein.

As to claim 6, Phillips et al. teaches "structuring" of its polymeric dielectric layer through laser ablation and/or laser scribing (paragraphs 90-94). Applicant's own specification discloses at page 5, first full paragraph, that laser modification is a known means for effecting structuring or decrosslinking of its spacer layer. As to claim 7, Phillips et al. lacks a teaching of converting the layer(s) into unique codes by means of fingerprint algorithms. However Phillips et al. teaches the desire to form unique features including bar codes, pictures of faces or people, etc. (paragraph 91). It would have similarly been obvious for one having ordinary skill in the art to have used fingerprint algorithms to form unique codes, as a matter of design preference, with the expectation of successful results, since the reference similarly teaches the formation of unique codes.

As to claim 10, Phillips et al. teaches that the metallic cluster layer is applied by vacuum processing (paragraph 85) which is inclusive of vapor deposition.

8. Claims 8, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. as applied to claim 1 above, and further in view of Kraus et al. (US 2002/0123235).

Phillips et al. teaches the desire to form various images in its optical coating. As an alternative to laser ablation or scribing, Phillips et al. teaches use of etching as means to form the images (paragraph 91). The Examiner notes that the claimed chemical sodium hypochlorite is a

known etchant. The prior art of Kraus et al. is cited merely for its teaching that hypochlorite salts are known etchants, including sodium hypochlorite (paragraphs 13-14). It is the Examiner's position that it would have been obvious to one having ordinary skill in the art to have used any known etchant, including sodium hypochlorite, to etch various images in its optical coatings (including the spacer layer) with the expectation of successful results since Phillips et al. is not limited to particular materials to be used and since sodium hypochlorite is a known etchant material. As to new claims 14 and 18, it is noted that contact with an etchant such as sodium hypochlorite meets the broad limitation of "modifying the spacer layer by … treatment with oxidizing fluid" since sodium hypochlorite is an oxidizing fluid.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. as applied to claim 1 above, and further in view of Winnik et al. (US 5,286,286).

Phillips et al. discusses the inclusion of color shifting ink in its optical coating (paragraph 90) as means for increasing the security. Winnik et al. is cited for its teaching of a color-shifting ink composition useful in providing security to documents, which includes the use of chromophore dyes (col. 8, line 50 through col. 9). Winnik et al. teaches inks that are substantially colorless and detectable when exposed to radiation outside the visible wavelength range, and which are useful in processes wherein it is desired to place invisible markings on documents such as providing security markings. One having ordinary skill in the art would have recognized, upon seeing the teachings of Phillips et al. and Winnik et al. in combination, that the chromophore-based inks of Winnik et al. would have added an increased level of security to the optical coatings/structure of Phillips et al. The test of obviousness is not express suggestion of

the claimed invention in any or all references but rather what the references taken collectively would suggest to those of ordinary skill in the art presumed to be familiar with them. *In re Rosselet*, 347 F.2d 847, 146 USPQ 183 (CCPA 1965); *In re Hedges*, 783 F.2d 1038.

10. Claims 3, 11, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips et al. as applied to claims 1 and 2 above, and further in view of Walter et al. (US 2005/0001038).

Phillips et al. lacks a teaching of forming the layer of metallic clusters on a second carrier substrate and then connecting the first and second carrier substrates to form the element. Walter et al. is cited for its teaching that the layer reflecting electromagnetic waves and spacer layer may be applied to one substrate, and a second carrier substrate having metallic clusters layer thereon, and connecting the two carrier substrates to generate the identification element (see Figure 2). It would have been obvious to one having ordinary skill in the art to have formed the identification element of Phillips et al. in a similar manner as that taught by Walter et al. with the expectation of successful results since the references are both directed to the formation of optical element comprising similar coating layers in a similar order.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten C. Jolley whose telephone number is 571-272-1421. The examiner can normally be reached on Monday to Tuesday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kirsten C Jolley/
Primary Examiner, Art Unit 1792

kcj